

**DESCRIPTION**

**Watertite TPM Airseal**, based on a liquid rubber, had a successful history as an air barrier membrane since the mid 70's. This two component liquid rubber compound cures to form a seamless, flexible and resilient air barrier which can also be incorporated as an insulation adhesive.

**FEATURES**

solvent free  
extremely low permeability  
excellent waterproofing properties  
excellent adhesion properties  
excellent crack bridging ability  
compatible with all standard insulation materials  
liquid application simplifies detailing  
can be sprayed or trowel applied  
tolerant cure chemistry allows year round application  
cures overnight to form a tough, seamless elastomeric membrane

**LIMITATIONS**

**Watertite TPM Airseal** is not to be applied to surfaces that are either wet, oily, frosted, dirty or contaminated in any way. **Watertite TPM Airseal** is not to be applied over lightweight cast in place concrete containing high moisture or certain curing compounds. Cast in place concrete should be cured for a minimum of two weeks prior to application of **Watertite TPM Airseal**.

**GENERAL CONDITIONS****Workmanship**

All work in this section is to be carried out by a skilled applicator approved by PennKote and in strict accordance with manufacturer's printed instructions.

**Product Storage and Handling**

All materials are to be stored in a clean, dry and protected area in their original containers sealed and undamaged. Manufacturer's labels are to be easily visible and undamaged.

**Protection of Other Work**

Care and precaution are to be exercised by the applicator so as not to damage the work of other trades. The applicator is responsible to take all necessary precautions to protect work of other trades during application.

**MATERIALS**

Air barrier membrane shall be PennKote **Watertite TPM Airseal**, two component, 100% solids, liquid applied difunctional polybutadiene compound.

Surface conditioner shall be PennKote **Watertite Surface Conditioner** resin modified bituminous primer-sealer.

Reinforcing fabric shall be PennKote **Pennflex** 16 denier nylon mesh.

Preformed membrane flashing shall be minimum 1.5 mm (60 mil) self adhesive polyethylene backed polymer modified bituminous membrane supplied by PennKote Ltd.



**APPLICATION**

Surfaces must be smooth, clean dry and free from loose contaminants. Brushing and/or scraping of block and concrete surfaces may be required to adequately prepare surface.

All surfaces to receive air barrier material as indicated in drawings shall be primed with **Watertite Surface Conditioner** using brush, roller or spray at a rate of 5-7 m<sup>2</sup>/ l (200-300 sq. ft./gal). Application rate is dependant on the porosity of the surface.

Mix **Watertite TPM Airseal** by adding activator into the base compound and mixing with a double blade agitator attached to a 12.7mm (1/2") drill at a low speed(700 rpm) for a period of not less than 5 minutes.

Once primed surface is dry to touch (minimum 20 minutes) apply mixed **Watertite TPM Airseal** using a trowel or spray application. Material must be applied continuously over surface at a minimum thickness of 1.5mm (60 mil) wet. Care should be taken to apply material completely around all projections.

For cracks and non-moving joints less than 1.59mm (1/16") wide apply **Watertite TPM Airseal** as directed, embed **Pennflex** reinforcing fabric into fresh material, then top dress reinforced area with an additional 1.5mm (60 mils) coat of material.

For cracks larger than 1.59mm (1/16") wide and dynamic joints apply **Watertite TPM Airseal** as directed, fully embed preformed membrane flashing, overlapping area a minimum of 100mm (4") on either side and top dress edges with an additional coat of material.

Press on rigid insulation before membrane becomes tack-free (approximately 1-3 hours) butting boards together and fully embedding insulation to eliminate voids. Cut and fit insulation into all depressions and irregular surfaces.

**CLEAN-UP**

Applicator is responsible for the removal of surplus and waste material incurred during application.

Equipment and tools can be cleaned using XYLOL.

**APPLICATION DATA**

<b>Colour</b>	Black
<b>Solids Content</b>	100%
<b>Packaging</b>	Premeasured 22.5 kg(50 lb) unit consisting of 22.5L (5 gal) pail containing base compound and 0.55L (1 pt) can of activator.
<b>Coverage</b>	Approximately 11.2 (120 sq. ft) per 22.5 Kg (50 lb) unit at 1.5mm (60 mil) applied thickness.
<b>Cured Thickness</b>	1.5mm (60 mil)
<b>Pot Life</b>	1 hour at 20°C
<b>Tack Free Time</b>	5-6 hours. (Insulation can be adhered for up to 3 hours after mixing.)
<b>Cure Time</b>	Material set within 12 hours @ 20°C. Full cure with 1 week.



<b>Application Temperature</b>	Between -18°C (0°F) and any working temperature.
<b>Shelf Life</b>	Unmixed - indefinite
<b>Flammability</b>	Contains no solvents or volatile material.
<b>Toxicity</b>	Cured material is non-toxic.
<b>Caution</b>	Harmful if swallowed. Avoid prolonged skin contact with fresh material. Keep out of reach of children.
<b>PHYSICAL PROPERTIES</b>	
<b>Brookfield Viscosity</b> (spindle TF, 20 rpm)	1700 poise @ 20°C
<b>Tensile Strength</b> (ASTM D412) * after aging	5.55 kg/sq.cm (79 psi) 5.55 kg/sq.cm (79 psi)
<b>100% Modulus</b> (ASTM D412) * after aging	1.97 kg/sq.cm (28 psi) 1.97 kg/sq.cm (28 psi)
<b>Elongation</b> (ASTM D412) * after aging	300% 300%
<b>Hardness</b> (Shore 00) * after aging 2 weeks at 70°C (158°F)	60 75
<b>Tear Strength</b>	4.12 kg/cm (23 pli) (lineal)
<b>Water Vapour Transmission</b>	0.141 ng/Pa.s.m <sup>2</sup> (0.00054 perms metric)
<b>Air Leakage**</b> l/m <sup>2</sup> .s at 75 Pa	0.006 Surpasses Type III Standards of NRC (complete test results available on request)
<b>Wind Load**</b>	No deflection, separation, damage or cracking observed under gust, wind and sustained wind load.
<b>Water Vapour Permeance***</b> (free film) (ASTM E-96)	0.10ng/Pa.s.m <sup>2</sup> (0.00115 perms metric)
<b>Environmental Resistance</b>	Excellent resistance to moisture, ozone, ultra-violet, extreme temperatures and industrial atmospheres.
<b>Environmental Resistance</b>	Excellent resistance to salts, diluted acids and alkali solutions, bacteria and fungus.

\*Heat aging for 1 week at 70°C (158°F)

\*\*Note 1: According to the NRC (Canada) guidelines, air barrier material Type 1 is designated by air leakage rates of max 0.15 l/s.m<sup>2</sup>. Type 2: max 0.1 l/s.m<sup>2</sup> and Type 3 max 0.05 l/s.m<sup>2</sup>.

\*\*\*Note 2: The material that retards water vapour migration at the maximum rate of 15 ng/Pa.s.m<sup>2</sup> is considered Type 1, between 15-45 ng/Pa.s.m<sup>2</sup> is Type 2 and between 45-57.2 ng/Pa.s.m<sup>2</sup> is a Type 3 vapour inhibitor. ASTM Designation



E241-90 Standard Practices for Increasing Durability of Building Constructions against Water-Induced Damage defines vapour inhibitor (formerly vapour barrier) as “a material that retards water vapour migration generally not exceeding 57.2 ng/Pa.s.m<sup>2</sup>” (1 perm).

**TECHNICAL ASSISTANCE**

Please contact **PennKote** for specific details and/or data not outlined in this literature. PennKote will provide technical assistance from preliminary design through to product application upon request.

**WARRANTY**

PennKote Ltd. warrants its products against manufacturing and material defects. PennKote will, for a period of two years from the date of application, supply replacement material for product proven to be defective. This warranty is in lieu of any and all other warranties expressed or implied. Pennkote Ltd. and any Distributor or Retailer of this product accept no liability for incidental or consequential damage due to defective material or improper installation. The user shall determine the suitability of this product for intended use.